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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,014	06/20/2003	Allen Carl	49386 CON (71995)	7152
21874 7590 08/17/2010 EDWARDS ANGELL PALMER & DODGE LLP P.O. BOX 55874 BOSTON, MA 02205				
EXAMINER				
COMSTOCK, DAVID C				
ART UNIT		PAPER NUMBER		
3733				
MAIL DATE		DELIVERY MODE		
08/17/2010		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/601,014

**Applicant(s)**

CARL ET AL.

**Examiner**

DAVID COMSTOCK

**Art Unit**

3733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 June 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 60-63, 80-90 and 101-104 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 88 is/are allowed.
- 6) ☒ Claim(s) 60-63, 80-87, 89, 90 and 101-104 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 60-63 and 80-86, 89, 90, and 101-104 are rejected under 35 U.S.C. 102(b) as being anticipated by Jumashev et al. (4,059,115; of record).

Jumashev et al. disclose the claimed invention including stabilizing adjacent vertebral segments 29, 30 by providing a rotating cutting implement 4, positioning a midpoint of the implement opposite to the space between the adjacent vertebral segments, rotatably cutting a channel in the vertebrae (Figs. 13-16), and implanting an implant 34, 35 (Figs 17-23, and col. 7, lines 1-32). The implement is moved to a position to cut both vertebral segments at the same time. The implant, which is formed of bone, extends between the adjacent segments and includes a spacer 36 (id.). The implant is arcuate in cross-section which lies in a plane extending through the vertebral segments. The apertures in each of the vertebral segments define a path for the arcuate implant.

Claims 60-63 and 80-87, 89, 90 and 101-104 are rejected under 35 U.S.C. 102(b) as being anticipated by Ulrich (4,135,506; of record).

Ulrich discloses the claimed invention including stabilizing adjacent vertebral segments V by providing a rotating cutting implement (a drill, see, e.g., col. 1, lines 61-64 and col. 2, line 14) to prepare a space between adjacent vertebral segments, and implanting an arcuate implant 1 (see, e.g., Figs 3 and 11). The implement is moved to a position to cut both vertebral segments at the same time (e.g., during the same procedure or without another intervening step or substantially simultaneously). The metal implant extends between the adjacent segments and includes a spacer portion, e.g., 12. The implant is arcuate and lies in a plane extending through the vertebral segments (cf., Figs. 1, 3 and 11). The apertures in each of the vertebral segments define a path for the arcuate implant (id.).

### ***Response to Arguments***

Applicant's arguments filed 03 June 2010 have been fully considered but do not place the application into condition for allowance. It is noted that in the method of Ulrich and Jumashev et al., the cutting implement is rotated in a plane that is at an angle with respect to the surface of the adjacent vertebrae, since the surface is curved and comprises portions at an angle to the plane. Jumashev et al. and Ulrich also rotatably cut a common channel in the adjacent vertebrae. In Ulrich both of the segments are adjacent pieces of vertebral bone. Moreover, the hole opposite the space therebetween is created by drilling as taught in the copending application referred to by Ulrich and again by Applicant (see remarks, page 11, line 2). The implants in both references extend between the adjacent segments and extend through the apertures through at

least a portion of depth thereof up to the surface (and completely through in one vertebral portion of Ulrich). Both references disclose methods wherein a width of the cut is smaller than a length thereof. For example, in Jumashhev, et al., Fig. 18, each width is smaller than the vertical length thereof. In addition, as seen in Ulrich, Figs. 3 and 11, a width (i.e., 9) is smaller than a vertical (as seen in the figures) length thereof.

### ***Allowable Subject Matter***

Claim 88 is allowable over the prior art of record. Both of the apertures are not a "through aperture" as set forth in claim 88 in either reference.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Comstock whose telephone number is (571) 272-4710 (a detailed message should be left if Examiner is unavailable). If attempts to reach the Examiner by telephone or voicemail are unsuccessful, the examiner's supervisor, Eduardo Robert, can be reached at (571) 272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/David Comstock/

Examiner, Art Unit 3733

/Eduardo C. Robert/

Supervisory Patent Examiner, Art Unit 3733